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Published on the 1st of every month, with a Double Number for May and June (Summer vacation.)

The year begins from 1st July. But subscribers may enrol themselves, for any of the following periods:

July to June ... Academic year
Jan. to Dec. ... Calendar year
April to March ... Official year

Advertisements are payable in advance by M.O. or by postal order:

ANNUAL:

INLAND RS 5-50
FOREIGN RS 7-50

Office:

MACHILIPATNAM
(S. India)

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Vol. XXXI: No. 1

July, 1964

EDUCATIONAL INDIA

A HIGH CLASS MONTHLY DEVOTED TO TOPICS OF
EDUCATIONAL AND LITERARY INTEREST

31 st YEAR



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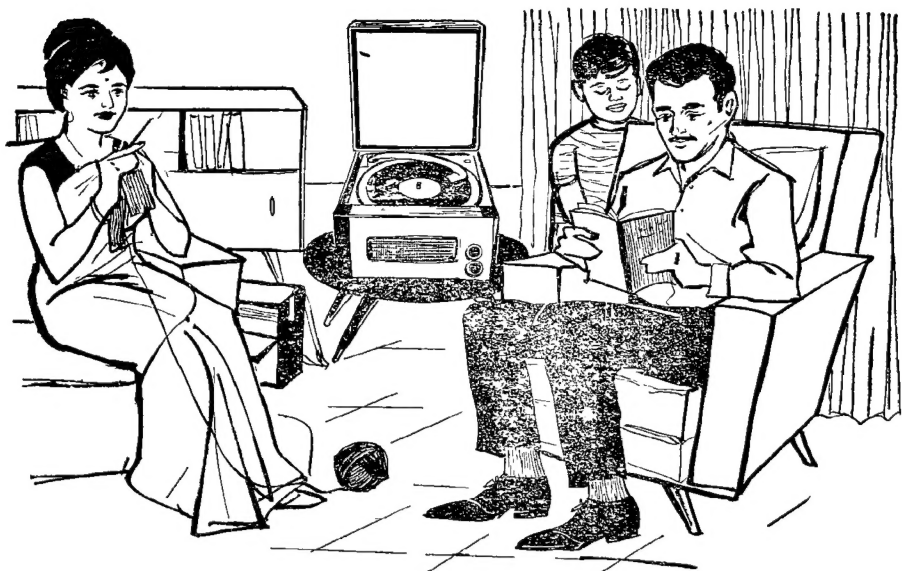
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Why Reform Examinations.

By Walker H. Hill, Ph. D.

EXAMINATION reform has been discussed so much in India in recent years that almost everyone who is at all conversant with educational problems knows that this is one of the necessary steps in the improvement of education. It is indeed so familiar that one may wonder how many educators remember—if they were ever fully aware of them—the reasons for emphasizing the reform.

The Radhakrishnan Commission in 1949 said that, if it could make only one recommendation for the improvement of university education, it would propose reform of the examinations.¹ The Mudaliar Commission in 1953 made a detailed indictment of the effects of external examinations on secondary education.² Most of the defects found by these bodies are still present in the examinations at both levels. Significant changes are now under way in the secondary examinations, however. Many improvements are needed, and some of them will soon be made. Why are they needed?

Examinations are very closely related to teaching and learning. When examinations are so important in determining the scholastic success or failure of students as are the

external examinations in India, they are bound to be the goal toward which educational activity is directed. Students want to learn, and teachers want to teach, what is needed to pass the examinations. If the mere storing up of factual information, however temporary it may be, is what "pays off" on an examination, this is the kind of learning that will be emphasized in the schools. If understanding, interpretation, application, thinking and the ability to solve problems seem unrelated to the prospect of getting good marks, the pursuit of these abilities will not interest students and will be ignored by teachers.

These latter objectives are just what enlightened educators wish to stress. They realize, first, that information alone does not make an educated person, and, second, that information is more useable and more permanent when it is accompanied by understanding and thinking. They know that students can gain more real knowledge when they acquire it in the solving of problems than they can when they memorize it by rote.

Teachers complain that students are not interested in systematic learning throughout the year. They prefer to cram themselves full of information in the last few weeks before the examination. They are

Dr. Walker is a specialist in Testing, Teachers' College, Columbia University Contract Team in India. The article originally intended for the April Number on Examinations reached us late and is published now. He considers examinations in India as a reform vital part of the process of improving Secondary Education.

1. Report of the University Education Commission, Delhi: Government of India Press, 1949
2. Report of the Secondary Education Commission, New Delhi; Ministry of Education, Government of India, 1953.

more interested in mastering cram books than textbooks. They want to be coached instead of being taught. We sympathize with the teachers' complaint, but who can honestly say students are wrong? What they achieve through their cramming is what the examinations are designed to test.

We want students to develop the knowledge and abilities which they can retain and use through life. It would be better for them if they did. But the examination is the goal that looms large before them, more tangible than what we see as the larger benefits of education, and it is no wonder that they set their sights on this target.

The external examinations are perfectly designed to encourage this point of view. Thus they defeat the real purposes of education. And so the students are misled; they are betrayed. Nor is it just the individual students who are the victims. In India's effort to develop a viable economy and to live as a democratic nation, she needs large numbers of people who are educated to the secondary level and whose minds are more than storehouses.

The objectives of modern education in India have not been clarified. Teachers do not really know for what purposes they are teaching. Students do not really know for what purposes they are learning. The lack of clear purpose is shared by educational administrators and by the parents of students.

To cut through this confusion will require a great deal of work by all who are concerned with education. Those who control the examinations are not wholly responsible for the present distortion of goals. They alone cannot set the schools on the

road to meaningful and sound objectives. But the responsibility is partly theirs, and the correction must be sought partly by them. There is much they can do to help.

Therefore, the first effort of the examining Boards must be to make the questions in examinations reflect what they consider to be the major objectives of high school instruction. Some of the Boards are now working at this through intensive conferences of paper setters. They are at the same time undertaking to make known to teachers what these objectives are and what kinds of questions will be used to test them in future examinations. They recognize that the examinations have a powerful influence on teaching, but the teaching must not lag behind. Improved examinations will not be fair to students unless the abilities they require are known to their teachers.

This is not to say that students should be coached to pass a new kind of examination. If the examinations are of the right kind, coaching and cramming will not produce good results. The questions will not be predictable but, the *kinds* of questions will be known. A comprehensive store of knowledge and understanding of facts, concepts, and principles; and ability to apply one's knowledge to novel situations and to solve problems which are like (but not the same as) the ones which have been studied—these are not acquired in a short time. They must be learned and developed over a period of years.

Examinations of this kind would test one's education, as distinguished from his temporary acquisition of a mass of illdigested information. They would require mastery of a subject, as distinguished from mastery of a textbook.

To develop this kind of examination is a tremendously important contribution which the examining Boards can make to secondary education. It would encourage changes in the curriculum, in teaching methods, and in the materials of instruction — changes which are badly needed and which many forward-looking schools are seeking to realize. Progressive developments in education are now being hindered by the examinations. Instead, the examination system can and should lead the way.

Along with this kind of improvement, there should be changes which make it possible for students, and all who are concerned with their educational achievement, to be confident that an examination mark is a true indication of an individual's competence in a subject. The present examinations are, to too great a degree, a gamble. A student must trust to luck that he has selected the questions which he can best answer, that he has correctly interpreted what the paper setter meant to ask, and that his mark is not lower than it might have been if a different examiner had read his script.

These elements of gambling are present because of the following characteristics of examinations.

(1) They include optional questions. These destroy the uniformity of the examination as a common measure for all students. They encourage students to omit portions of the syllabus in their preparation for the examination. They make it necessary for students to try to select the questions on which they can get the highest marks, an attempt which is not always successful. For these reasons, as well as others, the inclusion of options weakens the quality of examinations.

(2) Most examinations, requiring long essay answers, can include too few questions. They do not provide an adequate sample of the content of a course. This gives the student who is well prepared on those topics which are included an advantage over one who is well prepared on those which are not. Even with options, examinations frequently fail to include questions on some important parts of the syllabus.

(3) The statement of questions is often so vague or ambiguous that students have no way of knowing what aspects of the topic they are expected to discuss, or what kind of treatment is wanted. Sometimes they cannot tell whether they should answer in a sentence or two or in several pages. It is possible that in such cases the students who know most about the subject will have most trouble deciding how to answer. It is possible also that a very good answer will get little credit because it is so far from what the paper setter had in mind.

(4) Large numbers of examiners are involved in the reading and marking of scripts. Presumably they know the subject well; but they are not well trained for this work, they have different standards, and they vary from one another in their judgments of particular answers. Each script is read by a single examiner and there is no adequate review of his marking. When model answers are supplied, the variance may be reduced, but it is by no means eliminated. Each student's mark must depend on some person's subjective judgement of his performance.

There are many things the Boards can do to reduce these elements of chance in the examinations.

They can eliminate options. If they are not ready to go so far as eliminating them entirely, they can at least insist that questions which are given as alternative choices must refer to the same topic and the same objective and must be, as nearly as possible, equally difficult.

They can increase the coverage of content by including more short-answer questions and many more objective questions. In the same amount of time required to answer six or eight essay questions, students could answer thirty or more short-answer questions or 150 objective questions. No examination can test all that students are supposed to have learned. Each set of questions is a sample of those which might be asked. We need to make each examination an adequate and representative sample.

Short-answer questions are likely to be more specific than essay questions, but the latter can also be stated with a clarity of direction that makes plain to a competent student what he is expected to do. Vagueness is not an *essential* quality of essay questions, and the Boards can improve this aspect of the examinations.

Increasing the precision with which questions are stated also makes possible more objective appraisals of the answers. Short answers can be judged more objectively than long essays. In marking questions of the objective type, there is no subjectivity at all.

In addition to improving the question papers and the marking of scripts, the Boards should alter the examination system with a view to giving all students credit for what they have accomplished.

The purpose of the examinations is to qualify students for the second-

dary school leaving certificate. In most States, however, the sole criterion of success is qualification for university admission. No recognition is given to students who do not achieve this qualification, and they include more than half of the candidates. It is impossible to say how many of these have failed to meet a reasonable standard of high school completion, for no such standard exists.

The Boards must recognize that most school students will not, and should not, enter universities. Their formal education will end at the secondary stage. India is striving to develop a kind of secondary education that will be "a stage complete in itself with its own ends and special purposes."³ This cannot be accomplished as long as those who do not qualify for a higher stage are considered to be failures.

The Boards can do in reality what they are now doing nominally—namely examine students and certify them for secondary school completion—if they make this an achievement to be valued in its own right, without regard to university qualification. This means, incidentally, that every State needs a Secondary Education Board, with full jurisdiction over high school examinations. Examining for high school completion is not a proper function of a university, as examining for university admission is not a proper function of a Secondary Education Board.

This review of examination problems shows, I think, that examination reform is a vital part of the process of improving secondary education in India. It is designed to make the examinations better instru-

3. Report of the Secondary Education Commission, p. 24.

Educational Problems *vis-a-vis* Academic Orientation & the Family

By Prof. Dr. M. Varshney.

A CHILD is subjected to influences other than that of school; of the daily life, from which he can learn a lot if he has the right power of observation and also of the family on which finally rests the responsibility of education and taking a decision when there is a choice to be made.

Neglecting the influence of outside world, the child during his school days is subjected to dual authority, the family and the school. In case there is disagreement between the two, it may seriously harm him, but such instances are rare. Generally speaking the school and the family ignore each other i. e., there is no real collaboration between the two for a harmonious association of efforts with the object of fullest development of the child's personality. There are some parents, no doubt, who meet the teachers occasionally at their personal initiative, but usually no such arrangement is laid out in the educational set up. Generally the parents are called upon to meet the teachers or the headmaster when something goes wrong with the studies or conduct of their ward, and systematic organised contacts are non-existent.

We shall now see how a coordination, in the true sense of the word,

Dr. Varshney is professor and head of the Electrical Engg. Department, Motilal Nehru Regional Engineering College, Allahabad. In this he discusses some outstanding problems and pleads for better type of schools and quality teachers.

between the family and the educators can be organised for the good of the student. We shall consider three aspects viz: intellectual formation i. e. the collaboration of families with academic work proper, academic orientation i. e. choice of a new stage of formation when one is completed, and finally the moral formation i. e. education envisaged in its highest aspect.

(Continued from preceding page)

ments for measuring the achievement of students. Its major purpose is to transform the examination system from one which has a "baneful effect" on education to one which will be a positive force for educational betterment. If the projected reforms of examinations are carried to fulfilment, they will aid the secondary schools to develop sound objectives, to improve their methods of teaching, and to take their rightful place in the educational programme of modern India.

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The Family and the Studies

It should first be noted that collaboration between different authorities will be good if their fields are well defined and each one remains within its limits. For children, the family, in general, has confidence in the teachers and recognises their competence; but the portion of academic work that concerns the family are home-tasks and exercises. They should be so chosen that the child puts in all personal efforts he is capable of and makes use of his knowledge in solving them. For finally succeeding in doing so it is usually necessary to help him, except in case of a genius which is rather rare. But the help should be given only when he is confronted with a difficulty, neither too early nor too late, neither too much nor too little. Premature or excessive help suppresses his efforts i. e. the value of the exercise; whereas with late or insufficient help, the exercise discourages him. To give just what is required, neither more or less, and exactly when required is extremely difficult and is not possible in a family. The parents either leave the child at a loss or they do part of his work. In addition there may be natural difficulties like: insufficient accomodation at home, busy parents, family surroundings providing distraction etc.

In fact, upto the secondary school level inclusive, all such exercises should be done in the school as guided work where the teacher supervises each student in the right manner. The exercises can even be graded to suit weak and brilliant students. But it should be noted that this guided work is different from the classical tutorial classes where the presence of teacher is required for maintaining order and silence.

This, however, requires more money, since it is not possible to reduce

home work without increasing the number of hours at school. Also, for proper supervision, the classes have to be subdivided into smaller groups (possibly according to the level of students and their speed of grasping) to enable teachers to pay personal attention, during guided work. Both these need employing more teachers.

We should also see that the academic year is not cut short by too many vacations and the loss of about a month during the school final examination is avoided. In most states in India, the number of class hours is about 850 per year as compared to 1,200 in England and 1,300 in Germany. The efficiency of teaching can be completely transformed by replacing home tasks by 300 to 400 hours of guided work. Incidentally this will also put a stop to the rush for private tutors near the examination period, which a vast majority of families can ill afford.

Never-the-less, the family plays a very important role in the intellectual formation of a child. He gets instruction by a sort of impregnation of the very environment in which he lives, as much as by systematic teaching at school. Take for example the teaching of Hindi language. A teacher with experience will tell us that it is not the same thing to teach Hindi to children who speak it at home, and to children who speak some other dialect or language at home.

We suggested replacement of home tasks by guided work, but a personal and individual study of lessons with the help of books is recommended. Then the child's discussion with his parents, regarding his academic work, will not cause any inconvenience, but on the contrary be advantageous not only for him but for the parents as well and constitute real schooling in the family. No

other organisation of popular culture can be better than this environment in which the child lives.

The Problem of Academic Orientation

Pascal said: "The choice of career is the most important thing in life: left to chance." Since Pascal, the complexity of our existence has made the problem still worse and more difficult. Also trying to remove this factor of chance in the choice is the purpose of academic orientation with which the teachers as well as the educators are associated.

This orientation depends on both external and internal factors as regards children. A future career is considered as a function of the numerous openings it offers and the long and difficult studies necessitated; and the choice between different options is made according to the tastes and aptitudes noticed in the child.

There are some very easy cases clearly marked out. When the family has a business, workshop, farm, etc, and at least one of the children is capable of taking it over and does not refuse to do so, the solution is found. There is no difficulty either in orienting children who have highly marked tastes and aptitudes, constituting what may be termed a vocation. But this should be firm and stable. We find young men who seem to be firmly resolved to go in one direction, change their "firm decision" only a few months later for something else with the same conviction.

Very often the parents fix the future of their children irrespective of their aptitudes and in many cases being guided only by the monetary aspects of the profession—of course, in their anxiety to see them well off financially. I vividly remember a class-fellow of mine at the Engineering College who was very intelligent

but who could not do well in engineering education because of his lack of interest in the subject. If one looks at the performance for different branches of engineering offered by incoming students at the various Engineering institutions in the country, there is a marked shift from Civil Engg. to Mechanical Engg. in recent years; undoubtedly not because of change in aptitudes but because of change in employment prospects in the two fields.

Most of the average children, who constitute the majority, do not know what they want to do i. e. have no marked tastes. It is for them that an orientation capable of exploiting the possible resources to a maximum should replace Pascal's chance. Knowing the various employment prospects the question is to choose the one in which a child has maximum chances of success. For this his tastes, interests and aptitudes should be taken into account and a collaboration between the parents and the teachers can facilitate the solution.

The ideal would be to judge the personality of the child as correctly as possible not only at a given instant but also the perspectives of evolution. This needs a long term study of the child preferably at the beginning of secondary education. If competent teachers (in collaboration with the family) teach the child for say two years at this stage, and at the same time make psychological observations, they can suggest what type of formation will be best suited for him. This presupposes that these teachers should have good psychological formation along with a knowledge of the subject they teach. The acute shortage of such teachers in India is the main difficulty in implementing such a scheme if agreed upon.

(To be continued)

Types and Organisation of : : : : In-service Teacher Education

By Raghunath Safaya.

The Types of In-service Education

The classification of the types of in-service education can be made from a number of points of view, viz,

- a) the levels of education.
- b) the place of education
- c) the type or nature of in-service education.

a) From the point of view of levels of education, it will be of the following types :

1. Inservice education for teachers working in the elementary schools.

2. The inservice education for teachers working in the secondary schools.

3. The inservice education for lecturers in training colleges.

4. Inservice education for inspectors.

5. In-service education for lecturers in Arts and Science colleges.

b) From the point of view of place, its various types can be categorised as follows :

1. Inservice education in the school itself: Opportunities can be provided to the teachers for refreshing their experience through club meet-

ings, faculty meetings, study circles, exhibitions in the school, experimental projects, symposia, film shows, demonstration lessons, extension lectures by experts from outside, functions, fairs and library services. We should give first place to such opportunities received in the school. Charity begins at home. School is the first and the foremost centre for inservice education. It has got practical advantage also in so far as the teachers have not to be absent from the school in order to receive inservice education and the daily schedule of work is in no way disrupted. Among the items listed above the teachers club is the most important agency. There can be clubs for general educational problems and also clubs for special subjects. The subject clubs or subject faculties can work under the guidance of an expert from a training college.

2. Inservice education at the Training College and the Extension Services Department: A very encouraging beginning has been made in this direction by way of enrolling the secondary schools in a particular zone to a particular Training College and its extension services department, and organising seminars etc.

3. In-service education at a special institute: Certain specialised institutes may cater to inservice education in a specialised field of education. The Institute of English at Hyderabad provides short term

Mr. Safaya, M.A., M.Ed., P. E. S(1) Professor of Education—Govt. Training College, Jullundur has already dealt with 'In-service Teacher Education' in our last number. This is only a continuation of the same article.

courses in the teaching of English and linguistics to teachers in English. An institute like this has been opened at Chandigarh also. There is need for providing such specialised training as sports guidance, evaluation, textbook writing, curriculum construction etc. Training in these can be imparted at such institutes as Sports College, Guidance bureau, Evaluation Unit, Textbook bureaus set up by the State or Central Government.

4. In service education through tours and visits: Educational tours to different states and foreign countries; visits to places of educational importance and observation of educational activities at institutions other than own, go a long way about widening the mental horizon of the teachers. Even now very meagre facilities are provided to the teachers for having educational excursions. Majority of the teachers have the outlook and the attitudes of the frog in the well.

5. Teacher Exchange System: In western countries exchange of teachers among different countries has received a great impetus during the present century. U. K. and U.S.A. have been exchanging teachers almost with all the developed countries. Our country is just making a beginning in this direction. The exchange of teachers should be taken on a world-wide scale. This task can easily be undertaken by UNESCO. Exchange of Indian teachers with the teachers of other countries might have meagre and remote chances at present, but exchange of teachers between the Indian provinces is a matter needing immediate attention, in case we want to promote national integration, national consciousness, national solidarity and one nationhood. It will again out barriers of provincialism, casteism,

linguism, racialism, etc. There are teachers who know very little about their own country. Teacher exchange system is bound to increase the general efficiency of the teachers. The medium of instruction might pose a problem for elementary school teachers, but at the college level as long as English continues as an alternate medium to regional languages, there is no such difficulty. There is no such difficulty in the Hindi region as well, because Hindi is the common medium in all the institutions.

c) *From the point of view of nature of inservice education:*

1. Short Training Courses: These can be either for general education or for specific subjects—technical and vocational.

2. Refresher courses: These have a specific purpose of refreshing the experience of teachers and increasing their efficiency in the particular field.

3. Seminars: Knowledge and experience are gathered by collective and highly cooperative effort. Seminars offer an opportunity for that.

4. Workshops: These differ from the seminars in so far as there is no preplanned, or arbitrary plan of activities. The participants work on the problem that arise out of the situations and the programme evolves itself. More emphasis is laid on practical work than on theoretical discussion.

5. Conferences of teachers and headmasters, inspectors, lecturers and educational administrators broaden the range of experience and cultivate professional team spirit.

6. Extension lectures by experts in the various fields of education provide specialised information on the topics concerned.

7. Publications of the teachers themselves: The teachers may write on topics of general educational interest. They may also communicate their personal experiences, experiments made and educational projects completed. The schools or the extension services departments may publish the resumes of Action research conducted by the teachers in their schools.

8. Indirect training: There are certain passive or indirect methods also by which the teacher grows professionally. He can keep up his general knowledge by reading newspapers and educational journals periodically. Listening to radio, going to cinema to see historical and educational pictures, attending plays and dramas, participating in social clubs, joining citizenship activities, and such outdoor activities—all contribute to the development of his personality, cultivation of abilities, widening of outlook and stimulation of new ideas.

9. Inservice Training for untrained teachers: Even now there is good proportion of teachers in our schools who are not professionally trained. We can have short term courses for such untrained teachers as well. There may be trained teachers who are not suitable for Basic schools because they have not received training in Basic education. Short term orientation courses during vacation or free seasons can be organised for such teachers. Inspectors also can be initiated to Basic education and their prejudices removed.

Requirements for In-service Education

In order to launch a scheme of inservice education there are a number of essential requisites.

1. Organisation: In every State there is need for a coordinating Board of inservice education. It will be the

function of the Board to see that inservice training is not imparted haphazardly. At the Directorate level, one deputy director must be incharge of teacher training. The directorate must have two wings, viz; the preservice training and the inservice training.

The preservice training wing will govern the training schools and training colleges. The inservice training wing must govern the following:

- i) The inservice training units at the Training colleges, the Extension Services Departments.
- ii) Special units for inservice education attached to schools or colleges. At Prantiya Shikshan Mahavidyalaya, Jubblepur, there is a separate seminar department for inservice education.
- iii) Zonal offices which will coordinate the activities of all other units in the zone. The state can be divided into a number of zones for this purpose.

2. Finances: The state Governments shall have to make special allotment in the state budget for special grants, travelling expenses to participants, equipment and other establishment expenses.

3. Facilities to teachers: In order to motivate the teachers to join seminars, workshops, conferences etc., the following facilities must be provided to them. They must be paid full T.A. and D.A. permissible according to rules. Since the teachers are usually called for such purposes during the vacations, they must be given special vacation allowances. Mere leave credit in lieu of duty during vacations is not enough. In some

western countries separation from family allowance is also given to teachers joining seminars out of station. Without such a legitimate allowance the teacher may not like to leave his family for long periods. Sometimes the teachers are deputed to workshops and seminars but no substitutes are appointed in their places with the result that the students suffer and the teacher also is not able to complete the courses in time. Substitutes on temporary basis must be appointed in their places and the headmasters must be empowered to make the temporary appointments. The authorities organising the seminars or refresher courses must award certificates or diplomas for attending the course. The certificates will remain with them as a documentary proof of having attended such and such seminars. Not only must the certificates be issued, these must be recognised also by the Education Department, Public Service Commission, University and other employing authorities. While evaluating the work of the teacher for purposes of increment and promotion, due regard must be given to the participation in the inservice training courses. Another important facility is the publication facility. It is the task of the State Government to publish or arrange to publish teachers' journals wherein the teachers can communicate their experiences, report the results of their experiments, contribute their original thoughts, present testing material, and give practical suggestions and solutions to problems of common interest. There must be provision for publication of brochures and small pamphlets dealing with educational investigations and Action Researches.

These are some of the requirements of the inservice education. A modest beginning has been made,

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but the problem is as gigantic as the preservice education. Inservice education needs to be strengthened as much as the preservice education. It is calculated that inservice education should pay higher dividends than the preservice education. For continued efficiency of the teachers, we shall have make a headway in this direction and mobilise our existing resources.

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The Discussion Method

By Dr. S. M. Ziauddin Alavi

THE discussion method recently introduced at the undergraduate level has been viewed by some persons as of doubtful utility. Their main complaint is that the students do not participate in the discussion with the result that either the discussion lacks system and organisation or it is dominated by the teacher and takes the form of a lecture. This state of affairs can be remedied if some steps are taken to conduct the discussion on right lines. There can be no two opinions about the utility of the method if it provided food for thought for the students and caters for their effective participation. With this end in view, it is suggested that for all the discussions that have to take place discussion papers be prepared by the teachers concerned and its cyclostyled copies distributed among students well in advance of the actual discussion. The purpose of the discussion paper is to highlight the important aspects of the topic under discussion. The discussion paper is a sort of review of the problem by the teacher in which he poses key questions and seeks to find their answer. It is to be borne in mind that the paper is only of suggestive nature. It is far from desirable that in the actual discussion the students repeat the same views. They should be encouraged to express

what they themselves feel about the problem after a perusal of the teacher's point of view. In order to help them form their own opinion it will be useful if with the discussion papers are appended a list of suggestive readings. It is hoped that if these measures are adopted the discussions will be taken seriously by the students as well as the teachers and the discussion method will go a long way in serving the purpose for which it is meant. Two specimen discussion papers are appended herewith.

Discussion Paper on Society and Education (B. A. Part II).

The whole process of Education is made up of social relationships. The child grows up in and through an enlarging circle of social interaction. Beginning at home the process extends to the community, the play group and the school. These social groups set up models of behaviour manners and morals. The child's general reaction is to conform to the traditional mode of life but some talented individuals contribute creatively.

Points for discussion :

1. What is the relative importance of deviation from and conformity with the established patterns of behaviour ?
2. What factors are responsible for conformity with the established mode of life ?
3. What factors are responsible for social change ?

Dr. Alavi, Lecturer, Aligarh Muslim University has already initiated the subject in 'Educational India', Dec., '63. Here in this article he amplifies the subject and gives some specimen discussion papers to highlight the important aspects of it.

Society is in fact an aggregate of people bound together into an interacting group by their adherence to a common culture i. e. common attitudes, ways of behaviour, customs, traditions, material goods etc. On the one hand destruction of any of these will destroy the social group but on the other hand some innovation is also necessary for its well-being because the society is not static structure. Changes in the society may be attributed to the interaction of two classes of factors (inherent in the culture, viz. the stage of technical invention on the one hand and values, beliefs and philosophy on the other. The interaction of these factors give rise to various forces—economic, political, religious etc. which lead to change. For example in the primitive society the impact of the two factors resulted in the slow pace of change and in modern society the complexity of inventions as well as the complexity of ideologies have given rise to economic and political forces resulting in rapid changes in the structure of the society. These changes are transmitted to the younger generation by the formalised and institutionalised agency—the school.

Points for Discussion :

1. What is the relation between social change and Education ?

2. Is education one of the causes of social change or its result ?

Views differ on this point. Some people say that the schools must simply reflect the social changes that have already occurred. Others say that the schools should take an active part in directing social change and share in the reconstruction of a new social order. This idea is reflected in the views of idealistic educational

thinkers. Still another view is that education is dependent on social forces and has little to do with the reconstruction of a new social order. As an example of this view point may be cited the fate of Basic Education which was primarily designed with a view to change the society but in the meantime the country was heading towards rapid industrialisation; hence the scheme succumbed to the social forces. Thus far from changing the society, the scheme itself was changed to suit the conditions and even then it was destined to play a minor role in the reconstruction of a new social order.

Points for Discussion :

1. If education is a mere tool of the social forces then what is its value?

2. What steps should be taken to make education an effective agency of social change?

The most important function performed by education is the transmission and conservation of the cultural heritage. It is through this that the society ensures its continued existence. It is, however, not necessary to transmit the entire heritage, because judged in the light of modern social needs a good deal of the cultural heritage is not suited to the needs of the modern society which is in a state of transition. The most important fact about modern society is its rapidly changing nature. If education remained confined only to the transmission of the cultural heritage it would make society static. From this, it is evident that education must perform the function of reconstruction of culture i. e. a reshuffling and a new combination of the old and the new. In this way it will perform the function of directing and controlling the content and pace of change.

Discussion paper on School Curriculum (for B. A. Part I)

Speaking of the modern curriculum, Whitehead points out : "There is only one subject matter for education and that is life in all its manifestations. Instead of this single unity, we offer children Algebra from which nothing follows; Geography from which nothing follows; Science from which nothing follows; History from which nothing follows; a couple of languages never mastered and lastly, most dreary of all, literature, represented by plays of Shakespeare with philological notes and short analysis of plot and character to be in substance committed to memory."

Points for Discussion:-

1. What defects of the present day curriculum are pointed out in this quotation?
2. Do you agree with the views presented here? Why?
3. How to bring curriculum closer to life?

The most glaring defect of the curriculum pointed out by Whitehead is that the various subjects taught to the students have no relation with the life of the child. This tendency may be traced back to the influence of the faculty Psychology according to which the mind was thought to be composed of a number of faculties namely reasoning, imagination, perception, observation etc. From this it was concluded that the training of the mind consisted in the training of each of the supposed faculty. Further it was concluded that a particular faculty is trained through a certain kind of subject matter. Recent researches in the field have proved that this approach was wrong and the mind works as a whole and not in parts. This view necessitates a revision of our approach to curriculum.

Points for Discussion :-

1. What is the modern conception of curriculum?
2. What criteria should be taken into consideration in the selection of the curriculum?

If the theme of education is life then curriculum, which literally means a pathway or a course to be followed for acquainting the child with the varied aspects of life, may be said to imply totality of experience. This means that the curriculum is no longer confined to merely the material drawn from books or presented by the teacher. The underlying principle of curriculum construction is the fact that it is the whole environment that educates namely the physical environment as well as the social environment. Further it is the development of the total personality of the individual that is the objective of education. Another point worth consideration is the fact that the child is a growing organism and the society is dynamic.

Points for Discussion :

1. What is the importance of the fact that the child is a growing organism?
2. What is the importance of the dynamic nature of society?
3. What is its significance on the modern curriculum?

Knowledge about the nature of growth and its characteristics is important because through it, we learn how the emotional and social life changes from one stage to another and we also know about individual differences. This fact is helpful in the selection of the curriculum suitable to the age and stage of the child. The realisation of the dynamic nature of society is important because any fixed notions about the needs of the

Building a Museum

By Sri A. S. Rawat.

EVERY institution engaged either in teaching or extension should have a synoptic collection of material as a part of its permanent teaching equipment. Specimens of plants, animals and other natural objects provide good material for education and research besides a source of attraction for a layman. It may not be possible for a person or an institution to make a very complete collection in a single year, but over a period of years it is possible to accumulate a creditable one taking the shape of a good museum. If students become interested in collection, then it becomes an easy and quick process. In this article methods of collection and preservation of fauna and flora are suggested to retain as much originality as possible since any fault in the preservation tends to spoil the material.

The specimens, which one may wish to preserve and keep for display and demonstration use, fall in two categories :

1. Those specimens which can be dried and kept in a dry state like plants, seeds, wood and bark samples, shells, bones, marine animals as hard sponge, sea fans, starfishes, sea urchins, fossils etc. Most dry specimens require a little preliminary pre-

paration except through drying. Any moisture left due to carelessness will spoil the material. Marine specimens which are likely to retain unpleasant odour should be kept in 70% alcohol or 10% formalin (percentage given in terms of 'formalin' sold in the market which is 40% saturated solution of formaldehyde gas in water) for a day, rinsed in the water and then dried. Soaking starfishes and sea urchins in saturated borax solution before drying will protect them from damage by insects particularly museum (Dermatid) bottles.

Small crayfishes, crabs and similar crustaceans should also be given the borax treatment as mentioned above, making openings in all the joint membranes before drying. Mounting of the specimen should be done when the specimen is wet. The specimen can then be oil painted to its natural colour or left as such after applying a coat of white varnish or Du Pont's clear lacquer thinned to water consistency.

2. Those specimens which must be preserved in liquid preservative eg.

(Continued from preceding page)

society tend to become out of date and useless by the time they are included in the curriculum. In the light of these facts it may be said that a new curriculum must be born anew every day in every teaching learning situation and old form of a cyclopaedic course of study is to be replaced by a brief, flexible and informal curriculum which may be easily and quickly modified.

Mr. Rawat is an officer of 'Vijnan Mandir,' Dept. of Education, Govt. of Rajasthan. He gives in this article valuable instructions, for teachers, students and field workers engaged in Extension Services, who are interested in the Collection and Preservation of Animals and Plants.

animals like sea anemones, soft insects, fishes, frogs, lizards, snakes, fleshy plants etc.

A. Preservation of Fauna

Most of the animals are preserved in 10% formalin or 70% alcohol sol. or preservative prepared from varying combinations of these two chemicals. A comparatively new alcohol, iso-Propanol, has proved to be an excellent preservative for all purposes. For preserving an animal, it is essential to remove its alimentary tract by giving incision in the belly under anesthesia, washing in water and mounting on a glass plate by means of a thread. Using a needle: the thread may be passed through the specimen and tied securely at the back of the

plate. Printed or written paper label may be attached to the plate by means of Murrayite or any other water — and alcohol-proof cement. The animal is then put in a suitable jar containing proper preservative.

The insects and its immature stages are best preserved in Cargoy's fluid — 1 part glacial acetic acid, 6 parts of absolute alcohol with three parts of chloroform added to make it more active. The other best is Cal's solution, for histological material and embryo's is Bouin's fluid and smaller animal specimens is Formol-Acetic-Alcohol as suitable preservatives. The quantities of various chemicals in these preservatives are :

Chemical	Bouin's Fluid	Carl's Solution	Formol-Acetic-Alcohol
Commercial formalin	20 cc.	60 cc.	6½ cc.
Glacial acetic Acid	5 cc.	* 20 cc.	2½ cc.
Alcohol	X	170 cc. (90%)	100 cc. (50%)
Other	75 cc.		
	saturated sol. of picric acid	* add when using 280 cc. water	

Any insect preservative when used with small proportion of glycerine tends to prevent hard bodied insects from becoming excessively brittle.

The other method to preserve small and soft bodied insects like aphids and white flies is to make permanent slide. The subject is killed and then boiled in 10% KOH sol. (not necessary in case of minute insects). After was hing stain in haematoxlin till it catches colour. Wash again and just dip in 70% alcohol to which few drops of hydrochloric acid are added to remove excess of stain. Wash immediately in water. Dehydrate by dipping it in 70%, 90% and 100% alcohol for 15, 10 and 5 minutes respectively. Clean in xylol, cedarwood or clove oil and it becomes

transparent. Now mount on a glass slide with canada balsam.

The other method widely used to preserve insects is to mount it dry in insect boxes. Butterfly catching net should be used in catching insects. Night collecting is best way to obtain moths and many other nocturnal insects. One of the best ways is to use light traps which are nothing but illuminated white area kept in a open to attract insects. Warm and calm evenings are best for such a purpose. After capture of an insect it is killed in a cynide jar. The *Cynide jar* is made up by placing about ½" of Potassium (or Sodium) cynide in a wide mouth bottle (preferably of 16 oz. capacity) and covering it with an equal amount of fine saw dust. Put on this a blotting paper of the same

girth of the bottle, press it firmly and then on it pour $\frac{1}{4}$ " layer of plaster of paris paste. Allow to dry. By means of blotting or filter paper cover this also. Now by means of a pipette add a drop of water to start reaction and close the jar immediately. The jar should then be kept covered all the times as it has poisonous cyanide fumes inside it. Mark the bottle 'CYNIDE BOTTLE - DEADLY FUMES' and take best care in its handling.

After killing the insect they should be stretched properly. Stretch the legs and the wings after mount-

ing on a mounting board by piercing a pin through the places indicated below **. Press the wings with a piece of paper pinned at both ends so that the wings may not become folded. Now transfer the insect when it dries to the insect box. Use of carbon tetrachloride or naphthalene balls in the insect box is necessary to prevent damage by other insects. In case of small insect, mount it by means of gum on a small triangular cardboard and then fix it by piercing a pin to one of the triangular end in an insect box.

* * Position for pinning various Insects

1. *Middle of the thorax* : *Orthoptera* (grasshoppers etc.) *Neuroptera* (*Ephemerida*, *Odonata* (Dobson flies, Mayflies Dragon-flies etc.) *Lepidoptera* (Moths and butterflies), *Hymenoptera* (bees, ants and wasps), *Mecoptera* and *Trichoptera*.
(preferably little right side of thorax to avoid damage to the structure in the mid-dorsal line.
2. *Through the thorax* : *Hemiptera* (bugs)
3. *Through the right wing*. *Coleoptera*

In case of large specimens it is well to place a drop of shellac where the pin enters the insect to hold it firmly and preventing the danger of its swinging around and breaking adjacent specimens.

2. *Preparation of skeleton* : A good animal is the real basis of a good skeleton which is characterised not only by clean, white bones but by their perfect natural arrangement (articulation). The fleshing of an animal is other important point for which a fair knowledge of the anatomy of the specimen is essential. In fleshing, the ligaments that connect the bones should not be damaged; When all the flesh is removed, place the bones in a suitable glass container and cover it by pure water for maceration. Change water daily and the flesh that has been left adhering to the bones will be gradually removed by bacterial action (rotting) in 3-4

days when the water in the jar will become clear. Now put this in trisodium phosphate solution (1 oz. in 4.5 liters) so that maceration stops and the tissues left over the bones swells and become loose. Brush them by a soft brush using hot water and bleaching powder. Rinse in cold water. Degreasing should then be done when the bones are thoroughly dry by placing the skeleton in water covered by trichloroethane or carbon tetrachloride and keeping it in 8-10 days. Transfer it in 3% sol. of hydrogen peroxide for 12 hours and wash in cold water. The skeleton is now ready for drying in its natural position preparatory to mounting which is done on stiff wires. If bones get disarticulated during the process, then fix them by some fixing cement like Durofix, Pliobond etc. Another method is by Cantual (1948) by which the skeletons of the animals can be

cleaned quickly and safely. This is done by boiling the skeleton in 5% Ammonium carbonate solution and then bleaching in 5% Hydrogen peroxide. Application of white varnish on the bones will beautify the specimen and will make it more lasting.

3. *Alizarine preparation*: is suitable for lizards and fishes and can be tried on young small mammals and birds. After chloroforming, the material is mounted on a glass slide and fixed in 70% alcohol for 2 days and transferred to 1% Potassium hydroxide solution the strength of which is increased by adding 2-3 pallets of KOH daily, till the specimen becomes transparent. Wash and put in fresh 1% KOH with alizarine stain (to desired colour) till it gets colour. Wash freely and put in 50% Glycerine sol. and expose to sunlight to wash out excess of colour. Finally display in pure alizarine with a crystal of thymol as an antimold.

4. *Taxidermy*: is suitable for birds and mammals. The material to be stuffed is chloroformed and its internal organs are removed after incising its belly and neck. The internal lining is dried after rubbing well with spirit. Saw dust with copper sulphate, naphthalene powder and carbon tetrachloride is filled to give shape to the animal and the incisions on the belly and the neck are stitched. This makes the animal suitable for mounting. Insert artificial eyes in the eye sockets left after removal of the eyeballs.

B. Preservation of Flora

The flora differs according to regions and seasons. Thus to preserve the floral specimens for study becomes a necessity. The herbs are collected complete with root, stem and flowers while in shrubs and trees, leaves and the flowers which are important part in the taxonomy are collected and if

necessary individual parts are preserved separately. The preparation of herbarium specimens may be divided into two main processes—collection and preservation.

The plants are procured mostly during the field trips. A trowel or pick is necessary when the plants are required with roots. The plants taken during the field trips are preserved in a collecting can or vasculum or a field press for a time being and then treated by the following method (one which is suitable).

a) *Herbarium Method*: Herbarium is a collection of dried plant specimens. The specimen to be preserved is cut to a size of nearly 8"x10" and then with two blotting sheets on either side it is pressed by means of a press. The blotting papers are changed daily until the specimens are completely dry. The moist blotting papers are dried and can be used again. Old newspapers can also be used in the initial stages to dry the specimen. The dried specimens are mounted on herbarium sheets—standard size is 16.5 x 10.5 inches and on it name of the person collecting it, place and date of collection is recorded along with the local name and its local use. It should then be identified and the scientific name is recorded. The containers or cabinet containing the herbarium sheets in the museum should be filled with a good fumigant or insecticide like D. D. T. or B. H. C to prevent damage due to other insects. Treatment of these plants by means of a brush with a dilute solution of mercuric chloride once a year will also be found useful.

In the Science Museum, in the rural areas or in schools where agriculture is taught, the plant of economic importance with their pest placed in a test tube and the diseases also when displayed in exhibition boxes

using cotton as cushion will have their own appeal when the methods of their prevention and control are also recorded side by side.

The time of collection is important for the disease of the plants. In general excatti of phycomycetes are best collected during monsoons, the active asexual stages in the early part while hibernating sexual stages in the later part. The powdery mildews, rusts, smuts and bunts are best collected during winter. Perithecal stages of the mildews and the thecal stages of the rust are common at the close of the winter.

b) *Wet or pickled Method*: Plants can be preserved in 4% formalin solution (6% for large and fleshy forms). Formol - Acetic - Alcohol is also useful for most of the plants. The greatest disadvantage of formalin as a preservative in addition to its unpleasant odour is its property of bleaching. Alcohol also has this bleaching property. The green colour, when desired, can be retained by copper acetate treatment prior its preservation in formalin or putting it in 'Ever-green Solution.'

For copper acetate treatment boil the specimen in a saturated solution of copper acetate or copper sulphate in 50% acetic acid diluted with 3 parts of water. The green colour of the plant will first disappear but will be regained soon. Cool, wash and put in formalin. Copper sulphate can also be used in place of copper acetate.

Ever-Green Solution :

Phenol C. P.	20 gms.
Lactic Acid-Sp. gravity 1.21	20 gms.
Glycerine-S. G. 1.25	40 gms.
Distilled water	20 cc.
Cupric chloride	0.2 gms.
Cupric acetate	0.2 gms.

Note : Usually 3 to 10 days are required for complete preservation.

The plant if required for study is left in the solution as such and if required for display, then it is mounted in formalin solution.

Fleshier marine algae like *Fucus* may be preserved by soaking in glycerine and then drying.

There is one method for colour preservation of plants for herbaria, and can be used for flora by which natural colours of leaf and flower can be retained. For this purpose a layer 2" thick fine sand is spread in a rectangular tray on which the specimen to be preserved is stretched and then covered with 2" layer sand and is kept in shade. The sand absorbs the moisture from the plant which will be ready for mounting in 4-6 days. The material becomes brittle if kept in sand longer than required and there will be a trouble in mounting. To avoid it, mount the plant first by stitching it at a number of places and then keeping it in sand. The sand can be removed by brushing. Some of the flowers and fruits will keep their colour to some extent if 10% pure cane sugar is added to 10% formalin solution. Fruits such as apples may be preserved with its colour in the following solution.

Zinc Chloride	50 gms.
Formalin	25 cc.
Glycerine	25 cc.
Distilled water	1000 cc.

It is better to dissolve the Zinc chloride in hot water and filter while hot. Add formalin and glycerine. After cooling a sediment will appear (probably) which can be eliminated by decanting the clear liquid. This preservative preserves both red and green colour in apples.

Since the strength of the preservative decreases after some time it is advisable to change the preservative once in a year and also to make good the solution evaporated from time to time. ★

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Nehru and Education

IF Gandhiji is the acknowledged father of the modern Indian nation, it can be claimed for Nehru that he is the maker of modern India. Gandhiji was responsible for organising the nation for the struggle for political freedom, and for the survival, amounting to a rebirth, of the people as a free nation, with an individuality, a history, and a future destiny of its own. But it was Nehru who gradually, and, though gently and respectfully, yet deliberately, took over the leadership from his master during the last stages of the struggle, and took over charge from the British Government, of the administration of free India, at the very beginning of its new career. And he has ruled over the country, as well as the hearts of the people, with unquestioned authority, all these seventeen years. It is his vision, his ideals, his ideas, his policies and programmes, that have given shape and form to modern India. He has so dominated public life in India, for over a quarter of a century, at this critical stage in its history, that every department of our national life bears ample evidence of the impress of his personality and the influence of his ideals. And Education is no exception, though he never directly inter-

fered with it, or even interested himself in it.

THE Scientific Policy Resolution which he sponsored, mainly in the interests of the successful implementation of his plans for social and economic development of the country, and the Official Languages Bill, to which he managed to give a wise turn, and thereby a quietus though only for a time, to the fierce controversy over it, have exercised and will continue to exercise a great influence on our educational system.

THE emphasis which he laid on the need for encouraging scientific studies at all levels, and on the need for retaining an important place for the English language in our national life, will continue to influence our educational policy for a long time to come.

BUT the most profound influence exercised by Pandit Nehru on the youth of the country has been by his attitude to life and especially by his attitude to the culture of the land. The youth that has come up after the dawn of Independence does not know much of Gandhiji or his ideals or his philosophy of life. It has grown up in an atmosphere

saturated with the ideals and outlook of Nehru. He has been an apostle of modernism, an ardent advocate of socialism and secularism and a virulent critic of communalism and casteism, constantly ridiculing alike what he called the religion of the kitchen, and the mentality of the bullock cart. At the same time he was himself a man of culture, a writer of distinction, proud of the long history and ancient culture of India, a patriot with a firm faith in the value of the vital and fundamental elements of our culture, and the need for freedom and free growth of the nation even for the sake of the survival, welfare and progress of the entire human race. He was a sincere patriot and dynamic personality, and he sought to discover the soul of India, build on the fundamental elements of its hoary culture and the vital sources of its strength, adapting its present form to the circumstances of modern life, so that it may grow in freedom, retaining its individuality, take its proper place among the nations of the world, and contribute to the peace, welfare and progress of the human race. It is the bounden duty of the teachers and educationists, charged with the responsibility of inculcating noble ideals and proper attitudes in the youth of the country, to understand, explain clearly to them, and impress upon them, the ideals and attitudes of Nehru and especially his attitude to the inherited culture of the land

and to the now dominant Western civilisation and its values, so that the destiny which he envisaged for the nation and strove to prepare her for, all these years, might be realised in due course.

Nehru's Will

THE Will and Testament of Nehru to the Nation, extracts from which have been published in the Newspapers, is of great value for a correct understanding of the ideals of Nehru and his attitude to the culture of the land. Therein he specifically expresses his earnest desire that a small handful of his ashes should be thrown into the Ganga at Allahabad. He takes care to explain the reasons behind this wish in positive as well as negative terms. The explanation clarifies his attitude to Indian culture. He declares frankly that he has no religious sentiment in the matter. He goes a step further and asserts that he has no belief in any religious ceremonies. He points out that to submit to them, even as a matter of form, would be hypocrisy and an attempt to delude ourselves and others.

BUT he declares as frankly that the Ganga has been for him, as for all the people of India, (perhaps of all times), a symbol of India's age-long culture and civilisation, ever flowing, ever changing, and yet ever the same. He explains that it is as his last homage to India's cultural inheritance that he desires that a

handful of his ashes be thrown into the Ganga. He confesses, in this connection, that, though he has discarded much of past custom and tradition and he was anxious that India should rid herself of all the shackles that bind her and constrain her and divide her people and suppress vast numbers of them and prevent the free development of the body and the spirit, yet he does not wish to cut himself off from the past completely. "I am proud of that great inheritance that has been, and is, ours, and I am conscious that I too, like all of us, am a link in that unbroken chain, which goes back to the dawn of history, in the immemorial past of India. That chain I would not break, for I treasure it and seek inspiration from it."

NEHRU'S was a dynamic personality and an ever growing mind. He tried to discover for himself the real India, the vital sources of her culture which enabled her to survive innumerable centuries of time and tremendous vicissitudes of fortune. He was endeavouring in his own way, honestly, to understand and assimilate these vital elements of her culture, and retain and build upon them as basis, the structure of the nation in the present, adapting the shape to suit the conditions and circumstances of modern times, for a great future for her, and a great contribution by her people in the future, to the peace and welfare and progress of the human race.

IN this explanation of his wish in his Will we find not only his confession of faith in the fundamental values of our ancient culture, but also a revelation of the motive force of the vehemence with which he set about to disregard and discard, condemn and ridicule, and attempt to root out the customs and traditions, beliefs and ritual, institutions and systems, which he considered to be the superficial features, and accidental accretions, and harmful elements, in our, in the main glorious, cultural inheritance. It was only on the ground that, according to him, they divided her people, bound and constrained her like shackles, and prevented the free development of the body and the spirit, and suppressed vast numbers of them.

IT is up to us, who admire him and his lofty idealism, and feel grateful to him for all the services rendered by him to the nation all through his dedicated life, to seek enlightenment from this explanation in his Will, and derive inspiration from the glorious example he set in his life, to discover, or attempt honestly to discover, the vital and fundamental elements of our inherited culture, purify it, by discarding all in it that stands in the way of our unity, and progress, adapt it to modern times and circumstances, assimilate the really valuable elements in modern civilisation and culture, effect a synthesis of the old and new, and march forward on the path of progress, so that

our nation may take its proper place in the community of nations, and make its own contribution to the peace, progress and prosperity of the human race. It is a glorious future and a great task which our dear departed leader envisaged for us and set for us, and worked hard, all his life, to prepare us for.

Affiliated Colleges In Andhra The Revised Grant-in-Aid Code.

THE recent reorganisation of the system of Collegiate education, by the replacement of the old two year Intermediate Course and the two year first degree course by the one year Pre-University and the new three year degree course, resulted immediately in a steep fall in the total strength and consequent fall in the fee income of every private affiliated college of the Andhra, as perhaps of many an other State. The schemes of development, introduced along with the three year degree course, for improving (1) the accommodation and equipment of the Laboratories and libraries (2) the teacher-pupil ratio and (3) the salary scales of teachers, involved huge additional expenditure. In spite of the liberal grants from the Central Government of 50%, and from the State Government of 25%, of the additional expenditure, even the liability to meet their matching share of 25% of the additional expenditure, meant a heavy strain on the

meagre financial resources of these Colleges. The managements of these colleges, subsisting mainly on the fees collected from the students and the Teaching Grants received from the Government to the extent of 2/3 of the net deficit on their Revenue Budget, were soon left with their capital resources practically depleted, and mounting deficits to face from year to year. Most of them were obliged to borrow heavily to meet their 25% share of the additional capital expenditure incurred, and the 1½ share of the net deficit on the Revenue budget. The interest on the loans added to their liabilities and reduced many of them to the verge of bankruptcy. It was difficult for them, in these circumstances, to pay the salaries to the staff regularly, and much more difficult to pay in addition, their share, according to the system of matching grants offered for a few years, of the arrears due to the staff, on account of the implementation of the scales of pay prescribed by the University Grants Commission. It was practically impossible for them to implement the University Grants Commission scales of pay as a permanent measure and arrange for the payment of the salaries regularly every month according to the U. G. C. scales of pay.

SEVERAL representations were made to the Government by the managements and staff of these private, aided, affiliated

colleges, severally, and jointly through the Secretaries and Presidents of the Associations of Managements, and Teachers, that inadequacy of funds was hampering the proper functioning and growth of these Colleges. The Government of Andhra Pradesh therefore constituted a Committee under the Chairmanship of Dr. D. S. Reddy, Vice-Chancellor, Osmania University, with the Secretaries to Government, in the Education and Finance Departments, and the Director, and Joint Director, of Public Instruction, as other members thereof, to examine the need for a revision of the rules governing Grants-in-Aid to private colleges, and to make suitable recommendations to the Government for taking such steps as may be necessary in this regard. The Committee submitted a report and the government, accepting the recommendations of the Committee, issued orders revising the rules of Grants-in-aid to private colleges. According to the revised system, the Government may pay teaching grant to Aided Colleges adopting the formula "100% of expenditure on the salaries of the Teaching and Non-teaching Staff, minus fees at standard rates, to be limited to actual deficit." The Report further recommended, and the Government have accepted the report in toto,—that since the State Government has approved the adoption of the University Grants Commission scales of pay in all the Affiliated Colleges in the State with effect

from 1—3—1961, teaching grants to colleges should, in future, be assessed on the U. G. C. scales of pay.

SO the members of the Staff and managements of all these institutions should feel thankful to the Government for their wise decision, and the members of the D. S. Reddy Committee for their generous recommendations, which have come to their rescue in the crisis and go far to relieve them of all financial worries. Dependence on fee-income, for the maintenance of the colleges and the payment of salaries to the staff, is a great handicap, and a formidable obstacle to any genuine effort at improvement of the standards of discipline or instruction, and consequently to any attempt to raise the standards of attainment of the students.

IT may now be reasonably expected: that the Managements, assured of reimbursement by way Teaching Grants, of the entire net deficit on account of the salaries of the Teaching Staff, would implement the U. G. C. scales, fully and as a permanent measure, and arrange for the regular payment of the salaries every month according to the revised scales; and the staff, thus assured of the improved scales, and regular payment of their salaries according to the improved scales, concentrate their attention and energies on their legitimate work, and put forth whole-hearted efforts to the best of their abilities, and

Readers' Forum

Examination Reforms

Your Examination Number (April '64) is very impressive, instructive and informative. Those who stick to examinations as means of measuring one's educational achievement and attainments, will do well to study this particular Number before they think of introducing or suggesting any reforms in the examination system.

Since Independence, hasty changes have been made in the duration of learning process and in the medium of instruction but the system of examination with all its scare and serenity remains unchanged. Education has become rather examination-centred than character-centred. The Students cram the answers for the anticipated questions and Teachers coach them up in that direction. So it is all examinations from the beginning of the academic year till the students sit for their annual examinations. There is no real learning for the development of all-round personality.

I have found to my experience that it is the external examinations that have ruthlessly marred the future of the students. As Shri Shamsuddin has rightly put it that "at times irritated mental condition of the examiners may severely affect the future prospects of the students." His advocacy of introducing "Record forms" which keep complete record of an all-round information of pupils in schools deserves earnest consideration at the

(Continued from preceding page)

with zeal and enthusiasm, their sacred duties to the youth entrusted to them, and thus endeavour to raise the standards of higher education, and thereby contribute to the welfare and progress of the nation.

hands of the authorities concerned. This is all the more important when students from all strata of society seek admission under free system of education. This record should give full details of student's intelligence, achievement and aptitude and this record must help the examiners at the final examination.

In assessing the value of examinations in the present educational system, the educational authorities both in the field and in the administration should make an objective study of the examinations and make them useful and fruitful instruments for judging the pupils' intelligence, achievement and aptitude and not their mechanical memorizing the ill-digested and ill-assorted informations.

—R. S. V. RAO.

Madras.

Ban short-cuts to Exams

It is very often seen in the news items bold deliberations on the deterioration of the educational standard in India. But until now nothing has been brought forward to eradicate this acute problem of today which is not a problem to be solved either by the teachers or the parents. From experiments it is seen that while the teacher in the class teaches a subject, the pupils pay little attention to what the teacher says. Particularly the students of the final years of the Secondary course are not inclined to learn from the teacher by way of putting questions to him. It does not always mean that the teacher takes the ineffective method in teaching. Whatever the teacher does, he does for the good of the pupils.

In the application stage while questions are put to the pupils, they resort to answer from the word-notes of the keys. In the written works also the pupils bend upon to copy the notes. They never try to say or write something from their own, while they are subjected to copy the mode of expression of the teacher. Thus they lose their own creative impulse, and they never employ their own mental power to

exercise upon any new creation. This is not at all desirable.

Therefore, as a step towards the progressive development of the educational standard, the Notes, Guides and the short-cuts should immediately be banned. The writers and the publishers take it as a profession to prepare notes on their own line, without giving much priority to the vital needs of the pupils. It is high time to look into this matter very seriously.

If the Union Government and the State Governments, even at the cost of compensations to the publishers, try to remove all these short-cuts from the open markets, it will be a step ahead in the line.

Any comment on this will be welcome.

— G. C. Kakoty.
Digboi, Assam.

Allow Teachers, only to Teach

*Owing to heavy rush to the Secondary Schools, classes therein are always too big and class-teachers of such classes in most of the schools are crushed under the heap of work they are required to do. In addition to sufficient work connected with teaching, the class teacher has to look after a number of jobs such as attendance registers, collecting tuition fees and other fees and passing receipts for the amounts collected, class library, pupils' progress-cards and cumulative record cards, Terminal and Annual examination results, collections of subscriptions from the pupils at the time of occasional trips etc. Consequently, this affects his or her efficiency in teaching and lowers the standard of his or her work. This is not desirable. A teacher must be allowed to be a teacher and not a clerk. The school authorities should therefore relieve the teacher from all work other than teaching for which they can suitably appoint additional non-teaching staff. Education Department may please do some needful in the matter.

— M. B. Mainkar
Sopara.

Teachers at the crossroads

Teaching profession is the last resort for an educated young man. There is no doubt about it. Perhaps in this materialistic age, the emoluments which the post carries allures the young man more than anything else. Comparatively speaking teacher gets the least as compared to other professions. After getting his double graduate degree B.A., B.T., he is fitted in the grade of 110-8-250 in Panjab; in all it comes to be 166 Rs. per month. The conditions have changed enormously. The dearness has gone up manifold, but the teachers are continued to be paid in the old grades. The grades in other services are revised so often but teachers do not get any relief.

The low emoluments affect the efficiency of teachers. Poorly paid teachers do not put their heart and soul into their profession with the obvious result that third rate students are produced every year. Such students give a poor display of themselves before the interview Boards. They fail to answer simple questions of Geography, for example, a candidate said: "Korea is the backward state of Indian Union."

Even teachers themselves do not like their profession, and they would never like their sons or students to become teachers. They advise them to become Doctors, Engineers, or any other profession except teaching. It is abundantly clear that only third rate people adopt this profession and such teachers cannot be expected to produce first class students. Number of educational Conferences are held throughout the length and breadth of the country to improve the prevailing low standard of education but none plans to step up the grades of teachers.

I met a Regional Deputy Director of Ceylon in a Seminar, recently, who said that an untrained graduate in his country gets Rs. 400/- per month, and a trained graduate gets Rs. 600/- per month. Naturally teaching profession attracts Cream of the society. Now when the Govt. earns so much money by



DELHI

TEACHERS' CONSTITUENCIES TO BE ABOLISHED

Teachers' constituencies in the State legislative councils are likely to be abolished. Govt. proposes to bring forward legislation whereby the teachers' constituencies will be abolished, and the equivalent number of seats distributed so that the overall strength of the legislative council does not change.

The legislation will, however, protect the present incumbents whose number is around 25.

NATIONAL POLICY ON EDUCATION

Mr. M. C. Chagla, Minister for Education, declared in the Lok Sabha that the Government of India had decided to evolve a national policy in regard to education. It was with this view that he had proposed to set up an Educational Commission.

Giving out for the first time a detailed account of the objectives of the proposed Commission, the Minister said that all along separate commissions were appointed to go into different aspects or stages of education. It was for the first time that a national commission was being set up. It would comprise leading educationists of this country as well as experts from the U. S., Britain, USSR and Japan. The foreign experts could make an objective assessment of the system in our country

(Continued from preceding page)

way of tuition fees, it is quite difficult to understand why teachers are paid so low. If the Government is really anxious to improve the standard of education, she should bring the grades of teachers at par with other countries.

—S. S. Jaswal.

State College of Education, Patiala.

and make suggestions in regard to the formulation of a national policy.

TEACHERS FOR DEVELOPMENT SCHEMES

The Planning Commission and the University Grants Commission have agreed that socially inclined college and university teachers and students should be drawn into the planning process. The training will be given in batches of 25 teachers and the duration may be about two weeks.

NON-SCIENTISTS' POOL

The Government proposes to constitute a pool of non-scientists returning from abroad. The pool, on the lines of the scientists' pool, is aimed at attracting from foreign countries well-qualified Indians, in arts subjects.

Persons appointed will be attached or seconded to Government departments and universities, till they find other job. The person selected may be given an initial salary up to Rs. 700 per month or higher with the prior approval of the Government of India.

NATIONAL SCHOLARSHIPS

In order to avoid delays to recipients of National Scholarships, the Government has decided to send cheques directly to universities, which will cash them and give the money to the students.

ANDHRA PRADESH

COURSE IN CHEMISTRY

One of the Summer Institutes for College Teachers in Chemistry will be located in the Department of Chemistry, Osmania University, Hyderabad, which will cater to the whole Southern region. This Institute will be run by experienced members of staff in the Department of Chemistry under the auspices of the University Grants Commission, the National Council of Educational Research and Training and U. S. aid.

PANDITS' PAY REVISED

To remove disparities between the emoluments of Language Pandits and other teachers, and to improve the conditions of service of the former, the Government has ordered the following revised scales of pay for Language Pandits in Telugu, Hindi, Urdu and Sanskrit. Grade I: Rs 130—250 with three advance increments as personal pay to be merged in the future increments. The general education qualification of S. S. L. C. will not be insisted upon hereafter for appointment of Oriental Title holders as language teachers.

Grade II: Rs. 100—5—150. Holders of Oriental title with Pandits' training are eligible for this scale. If they do not possess Pandits' training and hold only the Oriental Title, they will be given the scale of Rs. 100-5-135. Candidates with only a pass in the preliminary examination of the Oriental Title will be eligible to start at Rs. 80 in the scale of Rs. 70—2—100. Candidates who qualify only in the entrance examination of the Oriental Title will start at Rs. 70 in the scale of Rs. 70—2—100.

The allowance of Rs. 10 p. m. which is now being given to Language Pandits Grade II who handle more than 12 periods in higher classes will now be given irrespective of the number of periods handled by them in the higher forms.

The Government has also instituted a scheme of awarding 500 scholarships each at the rate of Rs. 60 p. m. tenable for 10 months in a year in Oriental Colleges each year, with effect from this year.

TEACHING OF SCIENCE

Government attaches great importance to the improvement of teaching of science in high schools and is taking steps to give adequate laboratory equipment to high schools on a phased programme. A beginning is being made this year with a provision of Rs. 4 lakhs for this purpose. The Government has

also felt for a long time the need for improving the staff pattern in high schools in the Telangana area and to bring it up to the level of Andhra area. A sum of Rs. 5 lakhs was sanctioned last year and a further sum of Rs. 8 lakhs is being sanctioned in the current year for this purpose.

MORE TEACHERS FOR ELE. SCHOOLS

The Andhra Pradesh Government has sanctioned the appointment of 4,000 additional teachers in elementary schools during the current year with a view to keeping up the pace of elementary education and to achieving the Third Plan targets.

Of the 4,000 teachers 1,500 teachers will be utilised for opening of 1,500 sixth classes, i. e., middle schools now forming part of the intergrated seven years' elementary course. This will enable all pupils passing out of V class to continue their education in their own or nearby villages. According to this programme 714 new middle schools in Andhra area and 586 in Telangana area will be started immediately. Government has made a district-wise allotment keeping in view the need of each district. These allotments are being placed at the disposal of panchayat samithis who will open new schools in consultation with the District Educational Officers. Two hundred more middle schools will be sanctioned by the D. P. I.

MADRAS

GOVT'S ASSURANCE ON HIGHER SCALES

The Madras Government will pay teachers in aided secondary schools in the State the salaries now being drawn by them with the prior approval of the Government even if they might be in excess of the scales applicable for teachers in the Government secondary schools known as the "approved scales."

This clarification was given by a spokesman of the Government on May 18 to newsmen who wanted to know whe-

ther the higher scales of pay which the teachers in aided secondary schools were drawing on March 31 would be paid in the new set-up in which free secondary education upto the school final class had been introduced.

IX STANDARD ADMISSIONS

The Director of Public Instruction has issued instructions through the District Education Officers to all the heads of secondary schools in the State that pupils coming from Higher Elementary schools or senior Basic schools after passing the VIII standard may be treated on a par with pupils coming from the recognised secondary schools for the purpose of admission into the IX standard in secondary schools.

The instructions will be given effect to from this academic year.

BOMBAY

GOVT. SERVICE COMPULSORY FOR ENGG. STUDENTS

The State Government has decided to make it compulsory for the engineering graduates and diploma holders to serve the Government for two years after completion of their course, Mr. M. D. Chaudhari, Minister for Education told Pressmen.

The decision will come into force from this year when the new entrants in the engineering colleges and diploma courses will have to give a bond that they will work in Government service for two years after completion of their education. Those who will not fulfil the bond will have to refund the grants the Government gives per seat in engineering institutes.

PUNJAB

HEADMASTERS DESIGNATED AS PRINCIPALS

Headmasters and headmistresses in Punjab Government higher secondary schools have been designated as principals by the State Government.

It has also been decided to designate masters and mistresses in the

grades Rs. 180—450 and Rs. 200—250 working in such schools, as lecturers.

The Punjab Government has also decided that an applicant for the post of lecturer in higher secondary schools need not have done B.T., B.ED., or M. ED. to qualify for the post though such a qualification would be preferential.

ORISSA

PENSION FOR TEACHERS

Mr. Biren Mitra, Chief Minister of Orissa, announced on May 16 that the State Government had decided to extend the benefits of pension and gratuity to primary teachers in the State.

It is said that the Government had also decided to superannuate trained primary teachers on completion of their 68th year and untrained teachers on completion of their 58th year. There would be no extension of service or re-employment of retired teachers.

MYSORE

BANGALORE VARSITY

The Bangalore University Bill, 1964, seeking to establish and incorporate a federal type university for the city has just been published.

The Bangalore University is being founded for the encouragement of higher education and research in several branches of learning. It will be the third university in the State after the Mysore and the Karnataka Universities and will have jurisdiction over a 20-mile radius of Bangalore, covering about 22 colleges with a total strength of nearly 16,000 students at present under the jurisdiction of the Mysore University.

The recurring grant to be paid to the university would be about Rs. 7 lakhs a year.

A feature of the university is the close liaison sought to be forged with industry. It will be open to everyone throughout the country.



Public Opinion

Sri S. Bala Krishna Joshi's Exhortation to Teachers

In the course of his inaugural address to the 54th Madras State Educational Conference, held at Kumbakonam, on 21st May 64, Sri S. Bala Krishna Joshi, the distinguished Headmaster of the Hindu Theological High School, Madras exhorted the teachers with words full of wisdom and truth.

"We need to develop a sense of self-esteem, actively aware of the lofty mission that destiny has carved out for us, to cultivate a spirit of professional solidarity and to equip ourselves to serve as inspiring models of good life and right conduct. The diffidence on our part that often manifests itself in the pathetic expression 'only a teacher,' is the most serious obstacle to our progress. It is unfortunate that we should ourselves whine in despondency that our work does not come in for a due measure of recognition and reward. Honest and conscientious toil can never go un-noticed: sincere and selfless service can never go un-honoured. Impersonally, and in the abstract, the teaching profession has always been held in the highest reverence, and worthy representatives of it have always enjoyed the greatest esteem which is their desert. In the exaltation and glorification of the profession as a whole, lie by implication the recognition and reward of individual members that compose it.

"Let us remember that it is not every flower that blossoms that adorns a divine image in a sanctum sanctorum; that it is not every flower that blooms that perfumes the magic tresses of a noble matron; that it is not every flower that unfolds itself that embellishes the bewitching charm of an artistic bower. There be many buds that blush unseen, in loneliness, far from the cheery haunts of men and herds, content to fulfil their mission by breathing sweetness into the

atmosphere around them. They attain immortality through their immolation by perpetuating the fragrant traditions of their colourful species.

TEACHER'S GREATNESS

"The world never knows of its greatest men. In these days of organized flattery and studied publicity, popularity and praise are not a measure of intrinsic greatness: counterfeit fame is not an index of genuine worth. A teacher whose constructive and consecrated business is to fashion the invisible spirit through silent efforts, cannot by the very nature of his being, get blinded by lime light or become deafened by indiscriminate applause. A teacher's greatness is to be gauged not by the brick and mortar structures he has reared up, which may collapse at any time, not even by the tall intellectual poppies that manage to sprout under his fitful gaze but by the consistent and continuous influence that he exercises on his wards, which influence transfigures their beings and shines resplendent in righteous life and virtuous conduct.

MORAL STANDARDS

"Learning becomes an irrelevant and tortuous process if knowledge does not ripen into wisdom and flower into culture, exuding goodness all around. The sickening repetition that deterioration in moral standards has become a normal feature in our national life is perhaps the most tragic confession of the fruitlessness of our educational system. To take it for granted that the national Ethical Code has sunk down and to set up an elaborate machinery to fight the evils of unmoral and unsocial behaviour, is the most painful challenge to the civilizing influence of the teacher's work. The spectacular

increase in the numerical strength of teachers or the mechanical addition to the number of educational institutions, cannot minimise the evil and blighten the situation unless there is considerable improvement in the quality and the temper of the vast army of teachers, spread over the nook and corner of the land. To-day education is not merely a moral obligation but a social responsibility and a political necessity. The entire edifice of national progress and prosperity depends upon the enlightenment and the equilibrium of the citizens. Teachers who mould the mind and stabilise the character of the budding citizens who will fashion the destiny of the future, constitute in a real sense the back-bone of the nation. While it is true that they have to be inspired by an exalted sense of idealism, it is incumbent on the part of the public and the Government to set up and guarantee favourable conditions which will help them discharge their duties in a spirit of creative faith and dynamic enthusiasm. Teachers who have definitely to be inspiring models of right conduct, should on no account resort to indecorous methods to make themselves felt. That is exactly the reason why others should vigilantly safeguard their interests and strengthen their position. Let us, on our part, realise that in united aspiration lies our strength, that in concerted action lies our might and that in disciplined effort lies our victory."

'THE HINDU'

On

Central Aid for Education

The Hindu in its Editorial on June 19, points out various impracticable recommendations of the centre and writes :

"To a Union Minister looking at the rather chaotic school and college system in the various States of India, the idea of bringing about uniformity and raising standards all round must be attractive. To this the States could reply that it was the Centre which

caused confusion by its various recommendations for changing the system, some of which were found to be highly impracticable. The outstanding example is the insistence on the three-year degree course to be preceded by a stepping up of higher secondary education which has proved impossible in most States and resulted in the anomaly of the one-year Pre-University course. Again, the Centre has suggested higher rates of salary for college teachers which most colleges find it quite impossible to pay. There will probably be a great deal of opposition to making Education a concurrent subject, but, as Mr. M. C. Chagla pointed out, it is not necessary to do this by law. If the Centre comes forward with more aid for Education, its influence in the States would rise correspondingly. Whether greater uniformity in the school and college systems will come about as the result of the labours of a National Education Commission, which would make a fresh analysis of the situation over the next two years, remains to be seen. Meanwhile, the Centre can do much to improve the state of education by giving assistance for the improvement of school buildings and arranging for the better training and payment of teachers."

Mr. M. C. CHAGLA

On the Question of

Education as Concurrent Subject

Mr. M. C. Chagla, Union Education Minister, said that he would not press for amending the Constitution if the substance of his plea for making Education a concurrent subject could be achieved by persuading the States to allow the Centre to lay down the national policy and to work for it. The Union Minister, who was addressing a Press Conference at Trivandrum said, it might be worth while for the Centre to consider offering a 'bonus' as an incentive to the States to achieve the directive principle in the Constitution relating to spread of education.



The Planning of School Building Programmes

By RICHARD GREENOUGH

Department of Information, Unesco.

The era of the pedagogic penitentiary is past, the Director-General recently said in referring to school and university buildings. A school building needs to be more than an ingenious and technically coherent arrangement of rooms: it is where the child first meets what should be a microcosm of the age he will live in, and it should reflect his environment. The baked brick of Pakistan or the thatched *bure* of Fiji are as appropriate in their context as the polished wood of Finland or the concrete of Sao Paulo. But, all school buildings, as Mr. Maheu stressed, must 'create an atmosphere in which the child's personality can burgeon in active and cheerful security.'

Such buildings are needed most of all in the developing countries. But providing them, in a range extending from the rural one-teacher school to higher educational institutions, means not only money but careful planning and the rational use of local resources. Planning involves a trio working in close harmony: the architect with his professional skills; the teacher with his knowledge of children's ways and needs and the administrator with his financial acumen.

With these factors in mind, Unesco set up regional school building centres in Khartoum, to service Africa; Bandung, for Asia; and, more recently, in Mexico City, for Latin America. The initial role of these centres—to help in the actual construction of buildings—has since been modified, and now consists of promoting the exchange of information so as to create a pool of up-to-date records of experience and

techniques, and of experimenting in order to ascertain the best methods to be used to meet a given situation created by climate, geography, age and density of population, communication facilities, local traditions and available local materials. Above all, these regional centres will promote the establishment of national 'development groups' and aid them in selecting 'development projects'. At the same time, they will organize workshops where groups from various countries can discuss techniques.

This help can include advice on 'do-it-yourself' schemes for communities building their own primary schools: technical points such as the use of bottled gas for science laboratories; how to increase teaching space without raising building cost (in some cases the size of a classroom can be enlarged from 450 to 600 square feet), for example by reducing the number of classrooms (research shows that 30 per cent of a school's classrooms are unused 30 per cent of the time), and saving space used for corridors, cloakrooms and lavatories.

This new concept of the role of Unesco's school building centres first took shape at regional conferences of Ministers of Education held at Addis Ababa, Karachi and Santiago, where general plans drawn up to define targets for educational expansion in Africa, Asia and Latin America respectively. It was then crystallized at a special international educational building conference held in London in 1962.

These conferences also underscored the tremendous tasks facing education planners. In Latin America, for exam-

ple, only 68 per cent of the children of primary school age are enrolled in schools, and of these only 17 per cent finish school; 40 per cent of the adult population is illiterate; and 44 per cent of the primary school teachers are untrained largely through lack of the necessary facilities. In Africa, only 16 per cent of the children of primary and secondary school age attend school and 100 million men and women cannot read or write. In Asia, with nearly 400 million children between the ages of 5 and 14, only 165 million, or 41 per cent, attend school.

Each of these regions has adopted plans to achieve universal primary education—within ten years in Latin America, within twenty in Africa and Asia. This is the main goal, but others include the expansion of secondary education, particularly in Africa, the development of technical and higher education, and the eradication of illiteracy.

All this must be considered in terms not only of pupils and teachers but also of buildings to house them. For example, the Asian programme calls for provision of accommodation for 171 million children over and above the 35 million attending school in 1960. In addition, schools occupied by half the present school population need to be replaced. In Africa, schools have to be built for 22 million new primary school pupils, and in Latin America, for another 17 million.

Nor is this all. To produce the teachers needed by this host of new pupils, training colleges (most of them residential) must be built. If Asia is to achieve universal primary education by 1980, it will need 6,800,000 teachers in service by then—over three times the present figure. Latin America requires more than 400,000 new teachers during the next ten years and Africa will have to train as many as 76,700 teachers a year.

Building primary schools with local materials and labour need not be an overwhelming problem. In Mexico,

one new classroom is said to be going up every two minutes; in Africa, primary schools 'under the mango trees' require little more than mud, stone, wattle and locally-hewn timber. But much depends on communication facilities. In the highly mountainous country of Basutoland, for example, almost all building materials and equipment for a new school in the Mokhotlong district had to be carried by light aircraft to a landing strip three miles from the site, while corrugated iron and roof timber had to be hauled by jeep from Natal. This doubled the cost of the school.

Africa alone will have 5 million more secondary school pupils by 1980 and 283,000 more university students, of whom two-thirds will be enrolled in new science faculties.

What will these regional programmes cost? It is estimated that the plan for Africa drawn up in 1961 in Addis Ababa will require about \$2,600 million between now and 1980; in twenty years' time the contribution by States in the region will considerably exceed the multilateral international aid they are now receiving, and the present trend will thus be reversed. The total cost of the plan for Asia will be about \$56,217 million, while the cost of the ten-year plan for Latin America is estimated at \$34,523 million including \$500 million for adult education. In each case, a large part of the expenditure will be earmarked for the construction of schools.

Education is costly but, as the Director-General pointed out, 'in one field at least it is clear that standards must still be raised: the teacher, his personality, his attitude and values and his skills are key to the whole process. Consequently, in these days of expanding needs and diminishing resources, there inevitably arises a close scrutiny of other expenditures, and in particular of capital costs, largely those of building.

'Here there is a great opportunity and a great risk. A statistical study of costing is a major development in

the field of school planning and construction. On the other hand, the circulation of stock plans is inflexible and unrelated to local conditions, and the attempt to save space or lower quality may result in a considerable loss of productivity from inadequate accommodation and subsequent major expenditure on the maintenance of "cut-price" buildings. The solution of this dilemma—costs versus functional and psychological satisfaction—lies surely in the approach to the planning of school building programmes and of the buildings themselves. Herein in fact lies the importance of the work of the regional educational building centres set up by Unesco. —*Unesco Chronicle*

The Work of the United Nations A Realistic Appraisal

A booklet, analysing the work and problems of the United Nations, recounting its successes and shortcomings, in practical and realistic terms, has just been published under the title, *The United Nations - Who Needs It?*

The author, a senior member of the UN secretariat, lists the four main functions of the UN :

- as the world's permanent peace conference, a peace conference held in the eye of the hurricane of human emotions.,

- as the world's 'blow-off-steam' point,

- as a school in which we learn to live together, and

- as a trouble-shooter in 'messes.'

He then deals with how well the UN has performed its four jobs, citing specifically its handling of the Suez crisis and the situation in the Congo. The meaning of the UN Charter is examined and the author explains how it is applied in practice in such matters as disarmament, 'trouble-shooting' and the financing of UN operations.

Discussing majorities and blocks in the UN, one of the author's conclusions is that, "There is no real Afro-

asian bloc. The Afroasian nations each have different objectives, often conflicting. They need different things from the big powers. As a result, when they agree on a course of action, it is usually less extreme than that advocated by the more militant members. In that sense, the UN benefits world order."

Under the heading "The UN as a School", the work of the UN Expanded Programme of Technical Assistance, of the Special Fund, the various Agencies is described and analysed.

This booklet is part of a study guide series on the different organizations in the UN family and is designed for use by students, teachers, group leaders and libraries. — (*Unesco Features*).

The United Nations - Who Needs It?
Published by Oceana Publications, Inc., Dobbs
Ferry, New York.

Educational Publishers from 40 Countries meet

An international meeting of educational publishers, attended by some 65 participants from nearly 40 countries representing all regions of the world, will take place at Unesco House, Paris, from 22 to 26 June.

Two of the chief items on the agenda will be the role of educational publishers in using school textbooks for mutual appreciation of different cultures and for furthering international understanding, and assistance to developing countries in their educational publishing needs. Curriculum reform, new teaching methods and techniques and their effect on educational publishing, as well as the study of regular machinery for international cooperation, will also be on the agenda.

During the conference, participants will be able to examine an exhibition of several hundreds of recently produced textbooks on modern science and mathematics, and a number of new teaching techniques including examples of closed-circuit TV, language laboratories, teaching machines and projectors using the "loop film" process.

Correspondence

54th Madras State Educational Conference

Sir, —I had the privilege and pleasure of attending the 54th State Educational Conference held at Kumbakonam on 21st May '64. I perceived a perceptible mark of mental distress and a state of confusion worse confounded by the varying and varied statements issued from time to time by the Minister for Education on one hand and the departmental head on the other about the implementation of Free Education.

In his inaugural address, Shri S. Balakrishna Joshi described education as 'character-centred', teaching as a sacred mission and admirably appealed to the teaching fraternity to observe discipline and decorum as the essence of democracy in its approach to the problems and in its attempt to get redress of its grievances. Shri Srinivasaragavan stressed the fact that the "teachers have the right to ask for more and to be left with what they have, and free Schools should, if they are really schools, do something more than give education free, they should give an education in freedom." The distinguished Principal and the revered Headmaster who have graced the occasion with their presence have remarkably championed the cause of the teachers and symbolised in themselves the surging feeling of the 'Architects of the Future' in our resurgent and renaissance India.

It is not too much to hope that the authorities concerned will now reconsider and review the whole situation afresh in the light of the anxious deliberations and considered resolutions of the conference and revoke the order on the private managed schools that pay higher scales than the Government from the standpoint of efficiency and progress, and thus render education positive, progressive and purposive.

Madras

—R. S. V. Rao.

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— *Editor.*

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